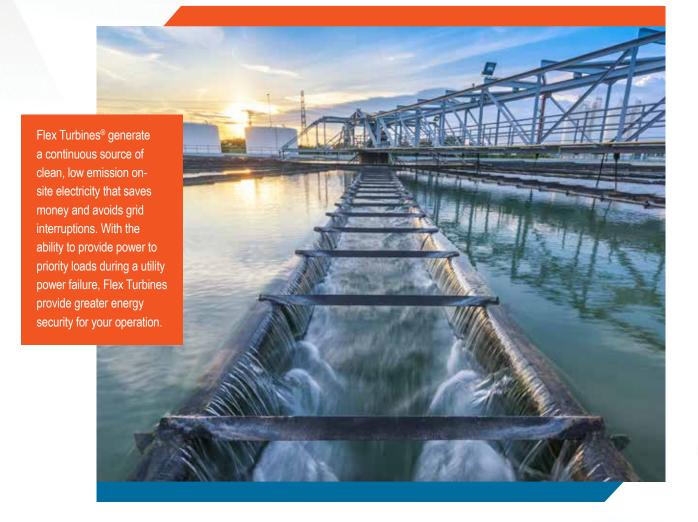


## **SOLUTIONS FOR BIOGAS OPERATIONS**



Ideal for waste treatment plants and landfills, Flex Turbines from Flex Energy Solutions® convert biogas (from landfills, waste-water treatment plants, digesters, etc.) into electricity and useful heat while reducing greenhouse gas emissions. Flex Turbines meet the most stringent air quality regulations, resulting in simple and fast permitting.

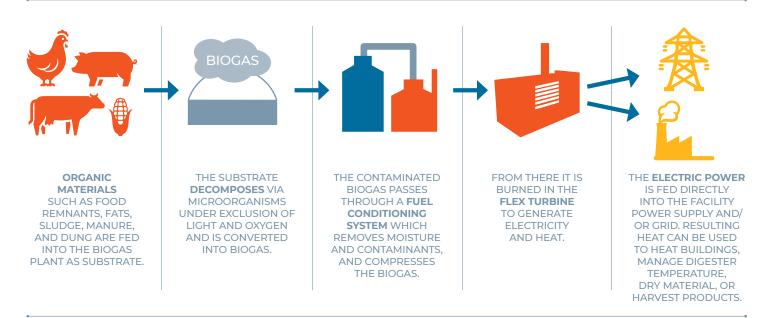


# ONE PERSON'S TRASH IS ANOTHER'S USEFUL GAS

Organic waste and food residuals are an untapped renewable energy source that mostly end up rotting in landfills, thereby releasing greenhouse gases into the atmosphere. It is estimated that 1.6 billion tons of carbon dioxide (CO<sub>2</sub>) equivalent greenhouse gas emissions were generated from solid waste treatment and disposal alone in 2016.

Instead of escaping into the air, these greenhouse gases can be captured, treated, and used as a renewable energy resource. When organic materials (plant and animal products) are broken down by bacteria in an oxygen-free environment, they produce biogas. This biogas can then be used to power Flex Turbines, which combust that gas to generate electricity and heat.

#### **CONVERTING BIOGASES INTO ELECTRICITY**



### ADVANTAGES OF FLEX TURBINES

The Flex Turbine is a complete efficient power system packaged in a compact enclosure. It converts a wide variety of gases into electricity and useful heat such as hot water. The modularity of Flex Turbines enables scaled power delivery for applications and supply needs ranging from small (333 kW) to large (MW+). Power from Flex Turbines provides a cost-effective, efficient, and clean solution for reliable on-site electricity and thermal energy.

When critical power from the utility is unpredictable, our turbines provide seamless electricity during intermittent or extended interruptions.











# BIOGAS DRIVERS AND BENEFITS

- Generate power continuously and independent of sun, wind, and water
- · Use flare gas as fuel
- Eliminates greenhouse gas impacts of methane venting and flaring
- Reliable operation with digester and landfill gases
- Fully integrated combined heat and power (CHP)
- Digesters need heat to maintain proper temperatures, an ideal CHP application
- Low maintenance, low lifetime cost
- Applicable for resiliency initiatives
- Federal and state policies and incentives available
- Configurable for utility support
- Good for the climate and reduces greenhouse gas emissions
- Resulting materials from digesters can replace mineral fertilizer
- Biogas plants can support industry and agriculture
- Strengthens rural areas and creates jobs



# WOULD YOUR BIOGAS APPLICATION BENEFIT FROM FLEX TURBINES?

ANSWERING "YES" TO ANY OF THE FOLLOWING QUESTIONS INDICATES THAT YOUR FACILITY MAY BE A GOOD CANDIDATE.

- Are reciprocating engine maintenance costs eating up your waste gas-to-energy project profits?
- Are you paying premiums for high facility electric loads?
- Is disposing of waste gas costing you money rather than making you money?
- · Are neighbors complaining about odors from your facility?
- Are environmental regulators on your case as emissions standards get tighter?
- When you lose power, do your neighbors or the local environment agency start calling?



#### **USE FLARE GAS AS FUEL**

#### SAIL THROUGH PERMITTING

Meets all environmental regulations, including non-attainment zone

#### **EASY SITE INTEGRATION**

- Simple solution creates revenue from waste gas
- · Durable construction for reliable operation

### INTEGRATED AND EFFICIENT HEAT RECOVERY

- Adjustable heat output
- Generate hot water to optimize digester conditions
- · Internal, pre-engineered heat exchanger provides hot water

#### **LOW EMISSIONS**

- Meets California South Coast Air Quality Management District permit requirements for operation on biogas fuels
- · Convert flared biogas to offset other harmful methane emissions

### **PROVEN TURBINE TECHNOLOGY**

Flex Energy Solutions has installed power generation systems worldwide for a wide variety of applications. With more than seven million hours of operating experience, our proven turbine technology is both mature and reliable. Flex Turbines help facilities reduce capital costs and provide a simple, reliable power solution. Savings are maximized over the lifetime of the turbines due to their highly durable industrial grade design, low maintenance, and remote monitoring capability. Flex Energy Solutions offers total care service packages, and ongoing service and support for worry-free operation.



CONTACT FLEX ENERGY SOLUTIONS
TO LEARN ABOUT FLEXIBLE LEASE
AND PURCHASE OPTIONS TO SUIT YOUR
POWER DELIVERY AND BUDGET NEEDS.



Power: reliable, clean, and simple.

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